

Vermont Mental Health Performance Indicator Project

DDMHS, Weeks Building, 103 South Main Street, Waterbury, VT 05671-1601 (802-241-2638)

MEMORANDUM

TO: Vermont Mental Health Performance Indicator Project
Advisory Group and Interested Parties

FROM: John Pandiani and Christine Van Vleck

DATE: September 17, 2003

RE: Revised Behavioral Health Inpatient Data Book 2001

This is a revised edition of the summary of finding from the 1990-2001 DDMHS Inpatient Data Book that was distributed on August 22, 2003. This earlier summary, included an over count of patient days and episodes of care at the Brattleboro Retreat for 2000-2001. This over count had a relatively small effect on the statewide count of episodes of care (1.5%) and a larger effect on the number of patient days (+9%). The impact on Brattleboro Retreat statistics, however, was substantial.

The Vermont Mental Health Performance Indicator Project has completed the latest edition of its annual report on "Inpatient Behavioral Health Care Services Provided to Vermont Residents". This report includes a detailed description of service utilization patterns for the twelve-year period, 1990-2001. This description includes year-by-year counts of the number of admissions and patient days of behavioral health care that were provided to Vermont residents by inpatient facilities in four states. The report also provides unduplicated counts of the number of Vermont residents who received inpatient behavioral health care during each year. The full report is available on line at www.state.vt.us/dmh/Data/2001inpatientdata.pdf. To receive a print edition of the full report, call Christine Van Vleck at 802-241-4302.

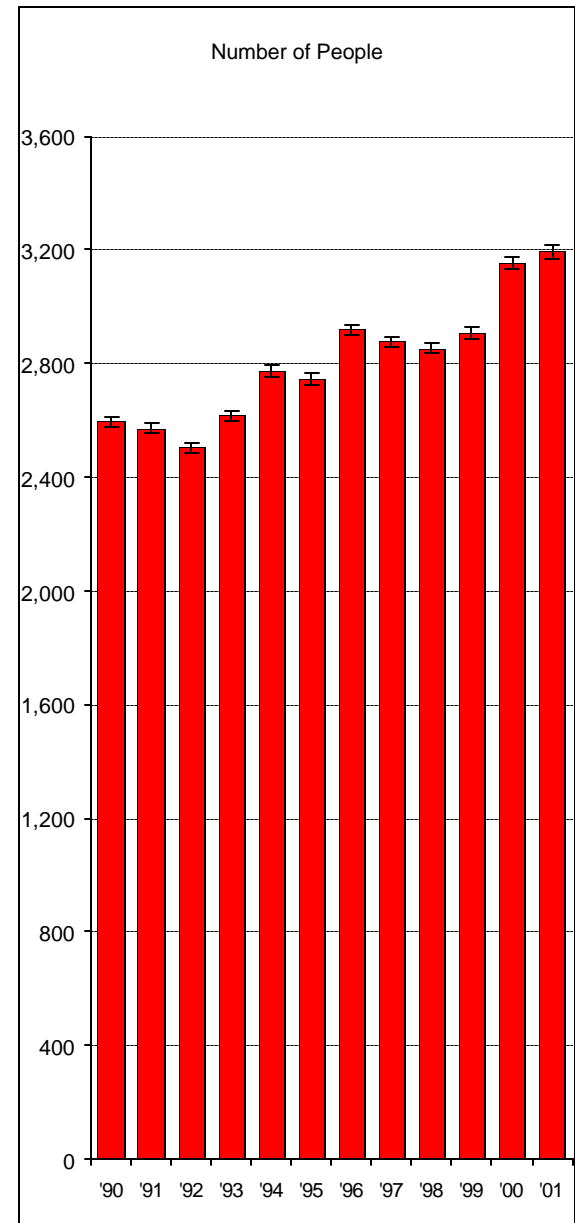
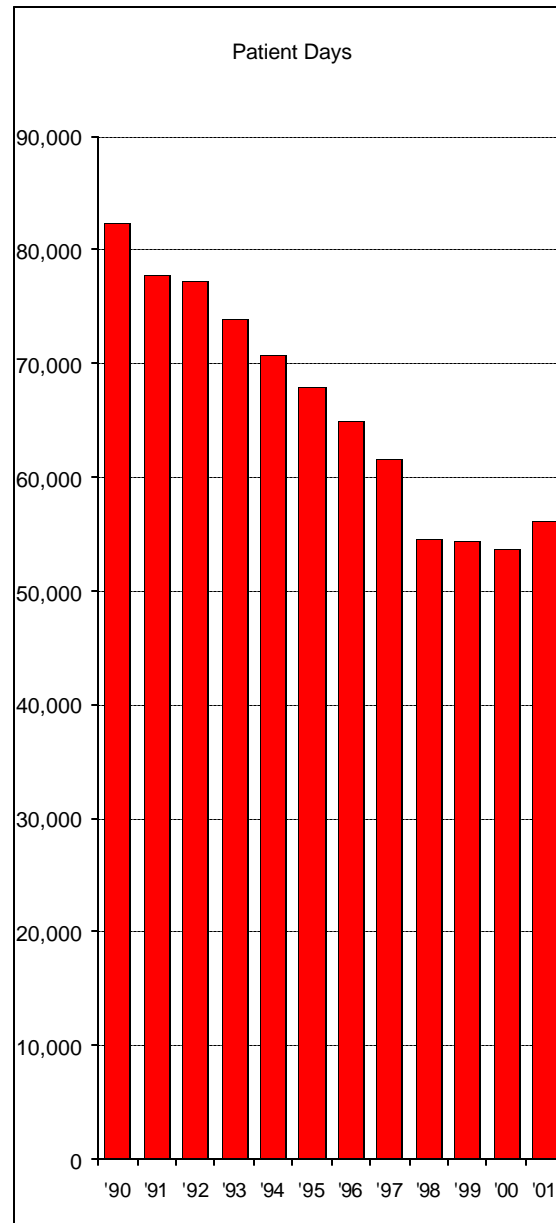
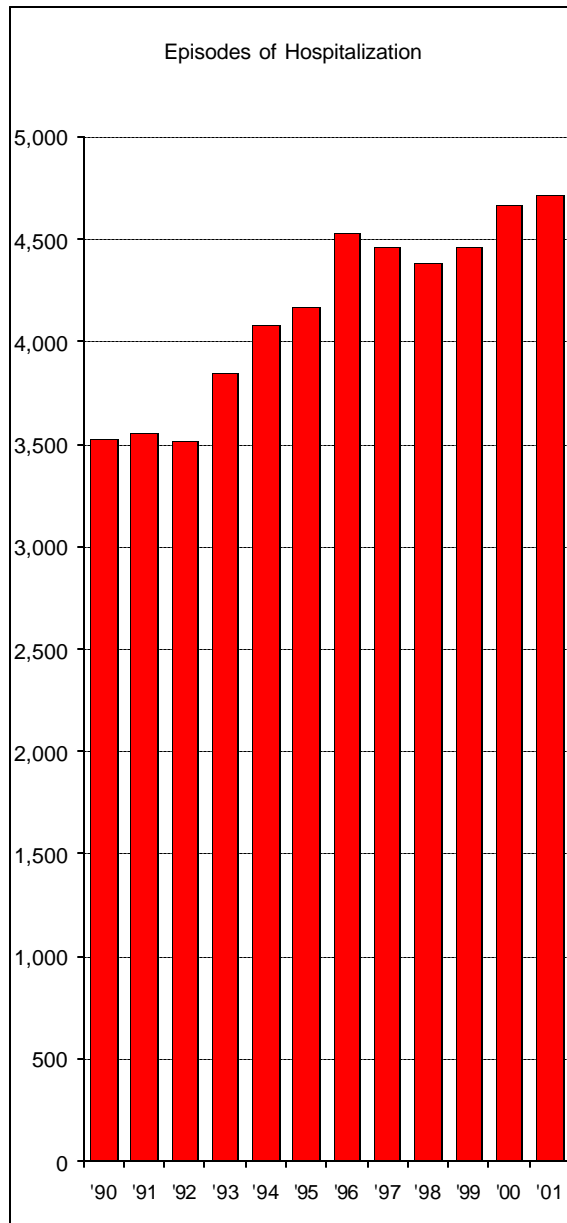
As with most PIP analyses, this report is based completely on analysis of existing databases: data that are laying around the house. Data for this analysis were provided by the Vermont Department of Health, the Vermont State Hospital, and the Brattleboro Retreat (Vermont's only private psychiatric hospital). The data provided by the Department of Health were extracted from Vermont's Hospital Discharge Data Set (a data set available in most states) that includes detailed (but de-identified) information regarding all episodes of hospitalization for Vermont residents that occur in general hospitals and veterans' hospitals in Vermont and surrounding states. Because these data sets do not include unique person identifiers, Probabilistic Population Estimation was used to determine unduplicated counts of individuals served.

These data indicate that there were significant increases in number of people served and episodes of care during the calendar years 2000 and 2001. There were also significant differences in rates of inpatient behavioral health care among counties throughout the period. In

recent years, for instance, utilization rates for residents of Rutland, Windsor, and Windham counties have been consistently higher than for other regions of Vermont.

We look forward to your comments and suggestions for future analysis of this very rich data set at pip@ddmhs.state.vt.us or call 802-241-2638.

INPATIENT BEHAVIORAL HEALTH CARE SERVICES Provided To Vermont Residents During 1990 - 2001



INPATIENT BEHAVIORAL HEALTH CARE SERVICES
Provided to Vermont Residents During 1990-2001

Episodes of Hospitalization by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	3,523	3,550	3,515	3,846	4,079	4,164	4,528	4,464	4,382	4,459	4,671	4,714
VT General Hospitals	2,060	1,986	2,020	2,069	2,231	2,142	2,514	2,576	2,451	2,586	2,713	2,644
Vermont State Hospital	488	501	401	382	405	381	354	380	309	293	261	300
Brattleboro Retreat	226	242	256	346	377	519	639	678	761	712	850	937
VA Hospital - WRJ	218	224	235	241	260	254	236	236	236	255	260	228
New Hampshire Hospitals	494	553	504	662	703	730	679	482	500	503	492	474
Other Out-of-State Hospitals	37	44	99	146	103	138	106	112	125	110	95	131

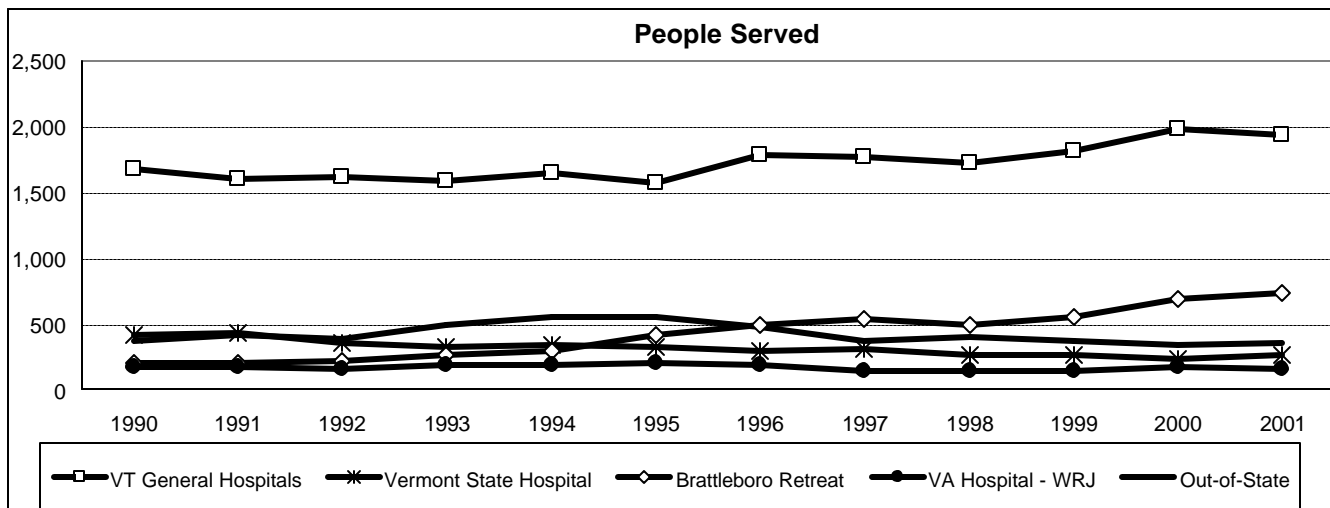
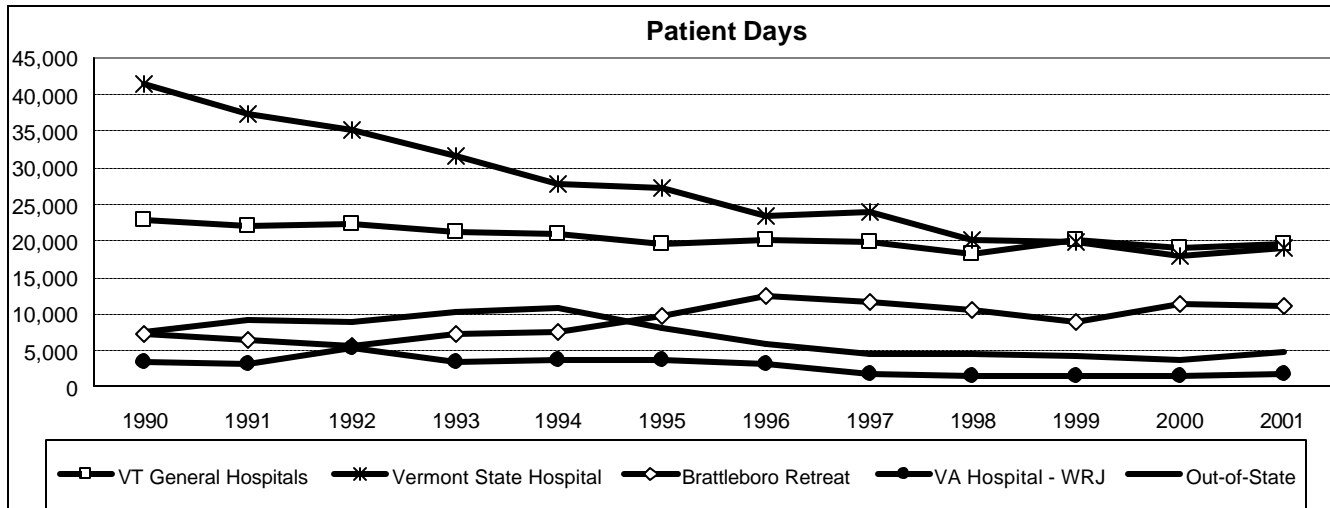
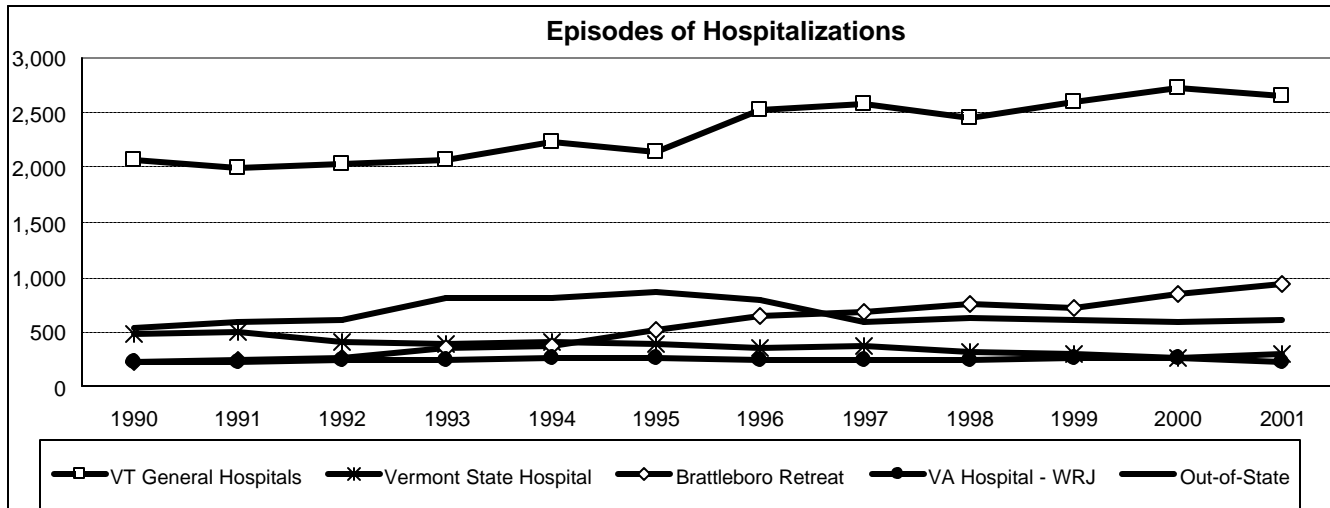
Patient Days by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	82,315	77,816	77,269	73,955	70,786	67,986	64,919	61,548	54,548	54,418	53,596	56,101
VT General Hospitals	22,835	22,066	22,287	21,291	20,962	19,498	20,034	19,781	18,114	20,054	19,075	19,599
Vermont State Hospital	41,265	37,143	35,130	31,602	27,778	27,059	23,452	23,827	19,961	19,815	17,963	19,039
Brattleboro Retreat	7,165	6,288	5,538	7,265	7,589	9,735	12,373	11,709	10,635	8,782	11,308	11,054
VA Hospital - WRJ	3,442	3,244	5,389	3,474	3,792	3,667	3,086	1,850	1,484	1,493	1,543	1,745
New Hampshire Hospitals	7,106	8,523	7,068	8,859	8,482	6,058	4,968	2,990	2,821	3,099	2,722	3,257
Other Out-of-State Hospitals	502	552	1,857	1,464	2,183	1,969	1,006	1,391	1,533	1,175	985	1,407

Unduplicated Number of People per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	461 ± 3	454 ± 3	439 ± 3	452 ± 3	474 ± 3	464 ± 3	489 ± 3	481 ± 3.3	476 ± 3	482 ± 3	518 ± 4	521 ± 4
VT General Hospitals	297 + 2	282 + 2	282 + 2	274 + 2	282 + 2	265 + 2	298 + 2	297 + 2.2	286 + 2	301 + 2.2	325 + 2.5	315 + 2.3
Vermont State Hospital	73	76	61	56	59	56	48	53	45	44	38	44
Brattleboro Retreat	36	37	38	46	51	71	81	90	81	93	114	121
VA Hospital - WRJ	30 ± 0.4	31 ± 0.4	29 ± 0.4	32 ± 0.4	33 ± 0.5	34 ± 0.5	30 ± 0.5	24 ± 0.3	23 ± 0.3	24 ± 0.3	28 ± 0.3	26 ± 0.3
New Hampshire Hospitals	66 ± 0.6	72 ± 0.6	68 ± 0.6	85 ± 0.7	95 ± 0.8	92 ± 0.8	80 ± 0.7	63 ± 0.7	66 ± 0.5	63 ± 0.5	57 ± 0.5	58 ± 0.5
Other Out-of-State Hospitals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

INPATIENT BEHAVIORAL HEALTH CARE SERVICES BY HOSPITAL TYPE 1990 - 2001



**AVERAGE DAILY CENSUS PER 100,000 POPULATION
FOR BEHAVIORAL HEALTH CARE SERVICES
PROVIDED TO VERMONT RESIDENTS: 1990 - 2001**

Average Daily Census per 100,000 Population by Hospital Type

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	40	38	37	35	33	31	30	28	25	25	24	25
VT General Hospitals	11	11	11	10	10	9	9	9	8	9	9	9
Vermont State Hospital	20	18	17	15	13	13	11	11	9	9	8	9
Brattleboro Retreat	3	3	3	3	4	5	6	5	5	4	5	5
VA Hospital - WRJ	2	2	3	2	2	2	1	1	1	1	1	1
New Hampshire Hospitals	3	4	3	4	4	3	2	1	1	1	1	1
Other Out-of-State Hospitals	< 1	< 1	1	1	1	1	< 1	1	1	1	< 1	1

Average Daily Census per 100,000 Population by County of Residence

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total	40	38	37	35	33	31	30	28	25	25	24	25
Addison	17	14	19	22	18	19	24	23	16	21	18	19
Bennington	30	32	28	31	34	34	30	28	20	18	21	25
Caledonia	29	31	26	22	21	18	19	18	14	14	14	13
Chittenden	39	41	38	36	33	32	26	29	28	27	28	28
Essex	13	22	18	18	32	15	22	21	26	32	17	14
Franklin/Grand Isle	23	24	33	22	24	17	22	18	14	17	17	21
Lamoille	39	37	25	31	24	15	16	18	20	22	14	14
Orange	29	30	35	31	22	22	26	20	21	19	21	22
Orleans	27	32	29	28	29	25	32	24	19	22	18	21
Rutland	28	25	26	22	23	30	23	19	21	20	22	25
Washington	95	75	71	62	62	54	48	44	31	28	26	28
Windham	44	40	52	53	44	49	53	49	47	39	37	35
Windsor	49	44	38	39	38	33	31	28	24	23	29	25
Unknown	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1	< 1

Information is derived from the Hospital Discharge Data Set maintained by the Vermont Health Department, and database extracts provided by the Brattleboro Retreat and Vermont State Hospital. Behavioral health care includes both mental illness and substance abuse.

Population figures used to calculate rates were obtained from the 1990 through 2001 Vital Statistics Reports published by the Vermont Department of Health.